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PRODUCT SAFETY DATA SHEET

Section I – Product and Company Identification

Product Name
ATL Rechargeable Lithium-Ion Polymer Battery
Chemical System
Graphite / Lithium Cobalt Oxide

Manufacturer’ Name

Amperex Technology Limited
3503 Wharf Cable TV Tower, 9 Hoi Shing Road
Tsuen Wan, N.T., Hong Kong

Tel: 852-2498-0908
Fax: 852-2498-1101

Date Prepared
Jul 16, 2001

Section II – Hazardous Ingredients

List of Hazardous Components
Graphite
Lithium Cobalt Oxide
Lithium Hexafluorophosphate
Organic Carbonates

Section III – Hazardous Identification

Under normal conditions of use the battery is hermitically sealed article. This product safety data sheet is provided for your information only. This battery is defined as an “Article” and as such is not subject to the OSHA Hazard Communication Standard for preparation of material safety data sheet (MSDS).

** **CAUTION**** Avoid contact with internal components. Inhaling electrolyte vapors can be hazardous. Material may react with water to emit small amounts of hydrogen fluoride gas. Avoid short circuits, battery will generate heat.

POTENTIAL HEALRH EFFECTS:
Route(s) of entry: Inhalation, Ingestion, Eye Contact, Skin Absorption
Effects of Exposure to Internal Components: Direct contact with the internal components can cause

irritation. Components may be very irritable to skin, eyes, and mucous membranes. May cause burning or dryness of the skin. Dust may irritate eyes upon exposure and may result in abrasion injury to the cornea. Overexposure due to inhalation may cause pulmonary burns. Ingestion of the material may cause vomiting, and abdominal discomfort.

Carcinogenicity: An ingredient. Lithium Cobalt Oxide, is considered a Class 2B carcinogen by IARC. Medical Conditions Aggravated by Exposure: Asthma, Respiratory disorders such as bronchitis, and emphysema, skin allergies, and eczema.

Section IV – First Aid

Health Hazard:

Contents of battery contain corrosive materials that are reactive with body moisture. The ATL battery also contains flammable materials when ignited.

Cancer Information:

Cobalt and cobalt compounds are under consideration as possible human carcinogens by IARC.

Acute Effects of Overexposure:

Contents contain materials that are irritants and corrosive to skin, throat, and eyes.

Chronic Effects of Overexposure:

No known effects.

First Aid Procedures:

EYES: If the contents of an opened battery come in contact with the eyes, immediately flush eyes with water for at least 15 minutes and seek immediate medical attention.

SKIN: If the contents of an open battery come in contact with the skin, wash with soap and water. If irritation persists or contact has been prolonged, seek immediate medical attention.

INGESTION: Swallowing a battery can be harmful. Contents of an open battery can cause serious chemical burns of mouth, esophagus, and gastrointestinal tract. If battery or open battery is ingested, do not induce vomiting or give food or drink. Seek medical attention immediately.

INHALATION: Remove from exposure to fresh air. Seek medical attention if necessary.

Section V – Fire Fighting Measures

Flash Point	Flammable Limits	LEL	UEL
N/A	N/A	N/A	N/A

Extinguishment Media:

Carbon dioxide, dry chemical powder, or appropriate foam. Do not use water.

Special Fire Fighting Procedures:
Wear self-contained breathing apparatus and full fire fighting protective clothing. Avoid fume inhalation, as smoke or fume may be toxic.

Unusual Fire and Explosion Hazards:
Toxic fumes may be generated during a fire. Contents may swell and burst when exposed to intense heat or flames.

Section VI – Accidental Release Measures

Not applicable during normal conditions of use.

Section VII – Handling and Storage

*****Caution***** Do not overcharge. Only charge according to manufacturer’s specifications. Do not expose internal components to wet environments. The contents may react with water to emit toxic vapors. Protect the battery from short circuits.

Handling: Wear latex gloves during handling to minimize contact. Wash hands with soap and water.

Storage: Material should be stored in a cool, dry, well-ventilated area out of sunlight and away from heat, fire hazards, and incompatible materials.

Precautions to be taken in Handling and Storage:
- Keep away from water, oxidizing materials, sparks, heat, open flame, or objects that could puncture the battery.
- If there are special encapsulation or sealing requirements, consult Amperex Technology Limited about special hazard precautions or limitations.
- Soldering or welding is not recommended by Amperex, Technology Limited except on tab terminals.
- Neoprene or natural rubber gloves and safety glasses should be worn if handling an open or leaking battery.

Section VIII – Exposure Controls, Personal Protection

The battery is an article. If handled according to instructions, no exposure to component chemicals is likely. To prevent exposure to the hazardous contents, DO NOT RUPTURE the battery casing. No usable materials are located within the battery casing.

Respiratory Protection:
Not necessary under normal conditions of use.

Eye Protection:
Not necessary under normal conditions of use.

Protective Gloves:

Not necessary under normal conditions of use.

****Caution**** Electrical shock potential. Do not cross battery leads. Shorting of battery may lead to casing rupture, which could expose user to hazardous components inside of the battery.

Ruptured Batteries: If battery ruptures, the following personal protection is recommended.

Skin	Wear latex gloves during handling to minimize skin contact
Eyes	Safety glass may be worn to prevent contact
Clothing	Avoid exposure to clothing. If exposed, wash separately.
Respiratory	Avoid breathing organic vapors. Use local exhaust to remove vapors from workspace.

Section IX- Physical and Chemical Properties

Physical State:	Solid – article
Freezing Point:	Not Applicable
Boiling Point:	Not Applicable
Density:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Flash Point:	Not Applicable
Evaporation Rate:	Not Applicable

Section X – Stability and Reactivity

Stability:

Stable during normal operation conditions.

Conditions to Avoid:

Incompatible with water, moisture, strong oxidizing agents, reducing agents, acids, and bases.

Materials to Avoid:

Incompatible with water, moisture, strong oxidizing agents, reducing agents, acids, and bases.

Hazardous Decomposition or Byproducts:

None under normal operating conditions. Carbon dioxide and hydrogen fluoride gas may be generated during combustion of battery.

Ventilation Requirements:

Not necessary under normal conditions of use.

Section XI- Toxicological Information

Not applicable under normal conditions of use. Chemicals within the battery have the following properties:
Cobalt (in lithium Cobalt Oxide is considered a Class 2B carcinogen by IARC.
Organic Carbonates (electrolyte) vapors are categorized as corrosive, flammable and irritants.

Section XII- Ecological Information

No data

Section XIII-Disposal Information

Do not incinerate or subject cells to temperatures in excess of 90°C. Such treatment can vaporize the liquid electrolyte and cause cell to rupture. Dispose in accordance with Federal, State and Local regulations.

Section XIV – Regulatory Information

Cobalt compounds are considered hazardous and are subject to reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986(SARA) and 40 CFR Part 372.

Section XV – Additional Information

Product Use:
Rechargeable Battery

Disclaimer:

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